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ABSTRACT

A number of studies have examined variables that discriminate individuals who drop out of mental health programs. However, relatively little attention has been focused on determining characteristics of individuals who fail to follow through after their initial contact with mental health services. This study was designed to provide a profile of individuals seeking treatment in a community mental health center and to determine client characteristics that discriminate individuals who fail to keep their initial appointment. Information about 407 consecutive calls for services was collected. Results indicated that there were significant gender and race differences in the reasons for utilization of community mental health services. A subset of variables accurately discriminated individuals who requested services but did not follow through with that request. Overall, no-shows as a group were less likely than those who attended or canceled first appointments, to provide information about home and work phone numbers, family doctor, and next of kin. No-shows were also more likely than the other two groups to be male, live in transient housing, report hallucinations, and present with relationship problems. Those who canceled their first appointment were more likely than the other two groups to have had more frequent contact with inpatient and outpatient treatment and to have a history of inpatient treatment. Six data tables and a list of intake variables are provided. (ABL)

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# Community Mental Health Services: Dropping-In and Dropping-out

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Abstract

In the shift of mental health services from inpatient to outpatient treatment, it is inevitable that community mental health resources will be taxed to capacity. The present study was designed to provide a profile of individuals seeking treatment in a community mental health center and to determine client characteristics that discriminate individuals who fail to keep their initial appointment. Information about 407 consecutive calls for services was collected via a standard telephone intake form. Results indicated that there were significant gender and race differences in the reasons for utilization of community mental health services. A subset of variables accurately discriminated individuals who requested services but did not follow through with that request.

## OVERVIEW

A number of studies have examined variables that discriminate individuals who drop-out of mental health treatment programs. However, the bulk of this research has focused on individuals who drop-out following the initiation of service delivery (e.g., evaluation/diagnostics, therapy). Relatively little attention has been focused on determining characteristics of individuals who fail to follow through after their initial contact (e.g., phone contact for intake appointment) with mental health services. The limited information that is available has generally come from studies of psychiatric outpatient clinics of large university medical centers or city hospitals. These data suggest that individuals who must wait an extended period of time before their initial appointment, are referred for treatment by medical professionals, have their appointments scheduled by a third party, or who live at a distance from the facility are less likely to keep their initial appointment. The fact that the majority of this data has been collected from large university and city hospital settings is curious since the demand for services in community mental health centers generally far exceeds the ability of the centers to provide those services, and community mental health centers generally serve more racially, culturally, and economically diverse populations. Lengthy waiting lists for services are quite common. The percentage of clients who fail to keep their initial appointments at community mental health centers has been estimated at as high as 50 percent by some reports. Given these facts about services at community mental health centers, it is critical that mechanisms be developed to minimize the probability that clients do not keep their initial appointments.

The present study was designed to provide a profile of characteristics of individuals seeking treatment in a community mental health center and to determine client characteristics that might be used to discriminate individuals who fail to keep their initial appointments as a preliminary analysis to improve service utilization at a community mental health center.

## METHOD

The Charleston Area Mental Health Center (CAMHC) serves an area with over 400,000 inhabitants. It consists of a number of different programs designed to serve those in need of

community mental health services. The majority of CAMHC's intake procedures are conducted at a centrally located main center. Typically, either the client or some representative of the client (e.g., hospital social worker) telephones the intake office and requests an initial appointment. During this initial telephone contact, a variety of information about the client and his or her presenting problem(s) are collected via a standard telephone intake form. Based on the client's presenting problem(s), clients are either given the earliest available appointment time in order to have a face-to-face assessment conducted or they are referred to other community agencies if these types of services are more appropriate.

Clients were identified for this study through the intake service log. All clients who had been scheduled for a face-to-face intake assessment for the five-month period between June 1990 and October 1990 were selected for inclusion in the sample. This procedure resulted in the identification of 407 adults who requested services during this time period. Information about these individuals (e.g., age, gender, race, marital status, presenting complaints, psychiatric history) was coded from the standard telephone intake form. Additional information (e.g., interval between telephone contact and intake appointment) and client status (i.e., kept appointment, canceled, no-showed) was obtained through a review of charts and the intake log records. Presenting complaints were coded from two sources: a problem checklist that was a part of the standard telephone intake form, and a narrative listing of the clients presenting complaint. Presenting complaints in both of these categories were further coded along a severity dimension in which problems such as "stress" or "anxiety" were coded as least severe and problems such as "psychotic features" or "manic symptoms" were coded as most severe. A complete listing of all variables coded for each client is listed in the appendix.

## RESULTS

The overall population characteristics of the identified sample are presented in Table 1. Of the 407 individuals identified, complete information could not be collected on 33 individuals. The final sample consisted of 374 adults requesting services. Overall, 39 percent of clients who had a scheduled intake either canceled or no-showed and were never seen for an intake

appointment (including additional appointments scheduled after a cancellation or no-show for the first appointment). The rate of no-shows (40%) and cancellations (17%) for the court referred clients was similar to the non court-referred cases. However, because the court-referred clients (N=45) had different reasons for contacting the mental health center, they were excluded from the analyses of drop-outs. Only 50 percent of all non court-referred scheduled clients kept their first intake appointment. Of those who rescheduled a second appointment ($N$=64), 56 percent either canceled or no-showed.

*Comparisons Across Gender and Race.* Males and females and minority and non-minority individuals were compared on all variables collected prior to the scheduled intake. For categorical variables, the $Chi^2$ statistic (with Yates correction where appropriate) was used. Continuous variables were analyzed by t-tests. Table 2 lists the percent of males and females presenting with a particular feature or complaint for all variables that discriminated between males and females. Overall, males were more likely than females to be single, present with problems of anger control, current alcohol and drug use, and to be court referred for an evaluation. In contrast, females were more likely than males to present with problems of depression, sleep difficulties, PTSD symptoms, have a prior history of treatment, be divorced, and to schedule their own intake appointment.

Table 3 lists the percent of non-minority and minority individuals presenting with a particular feature of complaint for all variables that discriminated between non-minority and minority individuals. Non-minority individuals were more likely than minority individuals to present with suicidal ideation, anger control problems, depression, relationship issues, be self-referred, and report a higher number of problems. In contrast, minority individuals were more likely than non-minority individuals to present with psychotic symptoms, be court-referred for an evaluation, and have more severe presenting problems (e.g., hallucinations vs. anxiety).

These results suggest that there are significant gender and race differences in the reasons for utilization of community mental health resources. In general, it appears that minorities and males are more likely to utilize these services primarily for the treatment of severe psychiatric conditions. Females and non-minorities appear to be more likely to utilize community mental health services for the treatment of a variety of less severe conditions.

*Comparisons Between Drop-Out Groups*. The different drop-out groups (i.e., no-show, cancel, show) were compared on all variables collected prior to the intake. Table 4 lists the variables that discriminated between clients who were ultimately seen for an intake appointment and clients who were never seen for an intake appointment regardless of the number of appointments for which they were scheduled. As indicated in the table, it appears that a variety of factors that indicate engagement in the treatment process (i.e., provides information about work, family doctor, relatives, and had prior contact with CAMHC) were more common in those individuals who were eventually seen for an intake. Clients who listed more or more severe problems, panic symptoms, or suicidal ideation as their reason for seeking services were more likely to follow through with their appointment. Additionally, those who completed an intake reported that they had had more frequent prior contact with outpatient services. Third party callers, distance to the center, referral source, and wait for appointment did not differ between the groups.

Further analyses were directed at identifying differences between individuals who kept their initial appointment, canceled their initial appointment, or did not show-up for their initial appointment. Clients who kept their initial appointment were more likely than those who canceled to: be younger, be male, provide the name of their relative, and be single. Additionally, they were less likely to have had previous inpatient treatment and had less inpatient treatment overall. Clients who keep their first appointment were more likely than clients who no-showed for their first appointment to: be self-scheduled, provide a home and work phone number, provide the name of a relative and family doctor, and be single. Those who no-showed were more likely than those who kept their appointment to report hallucinations, and live in transient housing (i.e., homeless shelter, motel). Those who canceled their first appointments were more likely than those who no-showed to: be younger, be female, give their home phone number, have fewer outpatient contacts, have fewer inpatient contacts, and to report more uncommon presenting problems. No-shows were more likely to list relationship problems as a reason for seeking services.

Table 5 lists the variables that discriminated between each of the three outcome groups for the first appointment. As indicated in the table, these variables had a high degree of overlap

with the three two-group comparisons. Overall, no-shows were less likely than the other two groups to provide information about home and work phone numbers, family doctor, and next of kin. No-shows were also more likely than the other two groups to be male, live in transient housing, report hallucinations, and present with relationship problems. Those who canceled their first appointment were more likely than the other two groups to have had more frequent contact with inpatient and outpatient treatment, and have a history of inpatient treatment. This group was also the least likely to be single.

*Multivariate Profile Analyses.* In order to determine how well the variables identified in the preceding analyses could be used to predict client status, five discriminant function analyses were conducted. The classification results for these analyses are shown in Table 6. The first analysis was directed at classifying clients who were eventually seen for an intake and those who were never seen for an intake regardless of the number of scheduled appointments. The twelve variables identified in the univariate analyses were entered into the equation. Overall, 67.8 percent of clients were correctly identified (67.6% never seen, 68.0% completed intakes). The second, third, and forth analyses were directed at categorizing clients into the correct category for each of the three two-group comparisons. Variables identified in the univariate analyses were entered into the discriminant function equation. Correct classification for the canceled (64.7%) versus showed (64.7%) comparison yielded an overall correct classification of 64.7 percent. For the showed (67.7%) versus no-showed (64.6%) comparison, 66.5 percent of clients were correctly classified. For the canceled (64.7%) versus no-showed (69.7%) comparison, 68.3 percent of cases were correctly classified. The final analysis was directed at classifying clients into the completed intake, cancel, and no-show categories for the first appointment. The twelve variables that discriminated between the three group comparisons in the univariate analyses were entered into the equation. Overall, 51.5 percent of the clients were correctly identified (52.1% completed intakes, 62.7% cancellations, 46.2% no-shows). The results of all of the discriminant functions were highly significant (all $ps < 0.0001$). As noted in Table 4 and Table 5, the majority of variables identified in the univariate analyses continued to make significant contributions to the prediction of group membership -- even when the influences of all other variables was partialed out of the prediction.

## CONCLUSIONS

In the continuing trend of the shift away from inpatient treatment (crisis stabilization) to outpatient services (symptom relief and management), it is inevitable that community mental health resources will be taxed to capacity. Consequently, it is critical to identify ways to identify ways in which to allocate these resources to serve the greatest number of individuals. The present study indicates that a group of individuals who request treatment but are unlikely to follow through with that request can be identified with a fairly high degree of accuracy. Overall, this group appears to be those individuals who are less engaged in the treatment process -- even at the point that they make their initial contact. Clients who are willing to disclose more information in their initial contact with the mental health center are more likely to continue their contact with the center. Unlike previous studies, in no comparison did the delay between initial phone contact and the first scheduled appointment differ between the groups. There was not any significant difference in the number of appointments made by third parties between the groups in any comparison. Nor did a client's referral source or the distance between the home address given by the client and the mental health center discriminate between the groups. A number of studies have identified simple interventions that are effective at reducing the no-show rate for the intake process (e.g., brief orientations, phone or mail prompts); however, these interventions have been applied to all individuals seeking services. The identification of a group of individuals that are unlikely to complete the intake process allows the targeted application of interventions designed to engage individuals in the treatment process prior to their first face-to-face contact. Such a strategy would ensure that all individuals in need of mental health services receive them. Moreover, it would allow for appropriate allocation and utilization of staff time for intake services. Additionally, the data suggest that more intensive education and outreach activities may have to be provided to certain groups in order to serve the mental health care needs of the full community.

TABLE 1. *Population Characteristics.*

| VARIABLE | |
|---|---|
| Total Number | 374 (407 Total Possible)[1] |
| Number Court Referred | 45[2] |
| Total No-Show Rate | 39.0% (*N*=144) |
| Percent Former CAMHC Clients | 28.0% |
| Percent Scheduled by 3rd Party | 35.0% |
| Race | |
| White | 61.8% |
| Minority | 29.1% |
| No Information | 09.1% |
| Gender | |
| Male | 31.0% |
| Female | 68.7% |
| No Information | 00.3% |
| Average Wait to Intake | 7.9 Days |
| Referral Source | |
| Self | 38.2% |
| Family | 03.7% |
| Other | 17.9% |
| Medical Prof. | 30.8% |
| Legal Agency | 07.0% |
| No Information | 02.4% |

*Note*: [1]407 Consecutive intakes between June 1990 and October 1990; unable to locate complete information on 29 schedule intakes. [2]These intakes were excluded from the drop-out analysis.

TABLE 2

*Variables That Discriminated Between Males and Females Who Requested CMHC Services.*

| Variable | MALES | FEMALES | Chi[2] p |
|---|---|---|---|
| Caller (%Self-Sched) | 54 | 70 | .005 |
| Marital Status[3] | | | .006 |
| Single | 49 | 34 | .007 |
| Divorced | 07 | 18 | .007 |
| Referral Source[3] | | | .030 |
| Court | 12 | 04 | .003 |
| Family MD Given | 10 | 25 | .001 |
| Depression | 53 | 74 | .001 |
| Homicidal Ideation | 05 | 01 | .049 |
| Alcohol Use | 36 | 19 | .001 |
| Drug Use | 17 | 07 | .003 |
| Prior Outpatient | 40 | 53 | .020 |
| Evaluation[2] | 16 | 03 | .001 |
| Depression[2] | 41 | 58 | .003 |
| Anger Problems[2] | 16 | 06 | .004 |
| Sleep Problems[2] | 00 | 04 | .094 |
| PTSD Symptoms[2] | 00 | 04 | .094 |

*Note*: [1]Percent of group reporting; [2]From narrative report; [3]Only categories on which the groups differed are listed.

TABLE 3

*Variables That Discriminated Between Minority and Non-Minority Individuals Who Requested CMHC Services.*

| Variable | Non-Minority[1] | Minority[1] | Chi[2] p |
|---|---|---|---|
| Prior CAMHC Client | 26 | 42 | .003 |
| Caller (%Self-Sched) | 74 | 56 | .002 |
| Work Phone Given | 20 | 11 | .060 |
| Marital Status[4] | | | .030 |
| Single | 38 | 49 | .085 |
| Married | 27 | 17 | .065 |
| Referral Source[4] | | | .008 |
| Self | 31 | 18 | .023 |
| Medical | 23 | 41 | .001 |
| Depression | 71 | 59 | .030 |
| Hallucinations | 01 | 10 | .001 |
| Marital Difficulties | 16 | 08 | .090 |
| Separation/Divorce | 11 | 04 | .036 |
| Suicidal Ideation | 16 | 05 | .006 |
| Anger Problems[3] | 13 | 05 | .037 |
| Age | 32.60 | 35.10 | .058[2] |
| Number of Problems | 1.89 | 1.62 | .004[2] |
| Severity of Problems | 1.77 | 2.05 | .035[2] |

*Note*: [1]Percent of group reporting; [2]Two-tailed t-test; [3]From narrative report; [4]Only categories on which the groups differed are listed.

TABLE 4

*Variables That Discriminated Clients Who Completed Intake and Clients Who Did Not Complete Intake.*

| Variable | No Contact | Complete | $Chi^2$ | $p$ | |
|---|---|---|---|---|---|
| Prior CAMHC Client | 22 | 33 | 0.040 | ** | |
| Housing (%Transient) | 07 | 01 | 0.010 | ** | |
| Home Phone Given | 79 | 86 | 0.100 | | |
| Work Phone Given | 08 | 22 | 0.002 | ** | |
| Family MD Given | 13 | 28 | 0.001 | | |
| Next of Kin Given | 40 | 64 | 0.001 | ** | |
| Panic Sxs. | 01 | 04 | 0.100 | ** | |
| Suicidal Ideation | 15 | 24 | 0.060 | | |
| Marital Stat (%Single) | 30 | 41 | 0.060 | ** | |
| Severity of Problems | 3.18 | 3.58 | 0.060 | | |
| Number of Problems | 1.71 | 1.87 | 0.060 | | |
| # Outpatient Contacts | 0.63 | 0.79 | 0.100 | | |

*Note*: ** Significant predictor of category in multivariate prediction model.

TABLE 5

*Variables That Discriminated Between Clients Who Attended, Canceled, or No-Showed Their First Intake Appointment.*

| Variable | Show | Cancel | No-Show | $Chi^2$ | $p$ | |
|---|---|---|---|---|---|---|
| Gender (%Female) | 71 | 89 | 68 | 0.020 | | |
| Housing (%Transient) | 01 | 02 | 07 | 0.070 | ** | |
| Home Phone Given | 85 | 93 | 76 | 0.020 | | |
| Work Phone Given | 21 | 11 | 11 | 0.040 | | |
| Family MD Given | 28 | 18 | 14 | 0.020 | | |
| Next of Kin Given | 65 | 49 | 42 | 0.001 | ** | |
| Prior Inpatient Tx | 29 | 51 | 38 | 0.010 | ** | |
| # Inpatient Contacts | 0.46 | 0.73 | 0.47 | 0.140 | ** | |
| # Outpatient Contacts | 0.61 | 0.91 | 0.76 | 0.100 | | |
| Hallucinations | 02 | 02 | 09 | 0.006 | ** | |
| Relationship Problems | 07 | 00 | 11 | 0.060 | | |
| Marital Stat (%Single) | 44 | 24 | 30 | 0.010 | | |

*Note*: ** Significant predictor of category in multivariate prediction model.

TABLE 6. *Classification Results of Discriminant Function Analyses.*

| ACTUAL GROUP | PREDICTED GROUP | | | Lambda | $Chi^2$ |
|---|---|---|---|---|---|
| **Contact vs. No-Contact** | | | | | |
| | C | N | | | |
| C | 155 | 73 | | 0.85 | $59.18^{****}$ |
| N | 46 | 96 | | | |
| **No-Show vs. Show** | | | | | |
| | N | S | | | |
| N | 84 | 46 | | 0.89 | $38.04^{****}$ |
| S | 60 | 126 | | | |
| **Cancel vs. Show** | | | | | |
| | C | S | | | |
| C | 33 | 18 | | 0.92 | $19.77^{**}$ |
| S | 67 | 123 | | | |
| **Cancel vs. No-Show** | | | | | |
| | C | N | | | |
| C | 33 | 18 | | 0.83 | $32.45^{****}$ |
| N | 40 | 92 | | | |
| **Show vs. Cancel vs. No-Show** | | | | | |
| | S | C | N | | |
| S | 98 | 45 | 45 | 0.81 [1] | |
| C | 11 | 32 | 8 | 0.93 [2] | |
| N | 38 | 32 | 60 | | |
| | | | $76.24^{****1}$ | $26.30^{**2}$ | |

*Note*: [1]first discriminative function; [2]second discriminative function. $^{**}p<0.01$, $^{***}p<0.001$, $^{****}p<0.0001$.

Appendix

*Intake Variables On Which Groups Were Compared.*

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Caller (client, other)
Address (transient, apartment, house)
Location of Address (distance)
Home Phone Number Given (yes, no)
Work Phone Number Given (yes, no)
Client's Age
Client's Race
Client's Gender
Client's Marital Status
Referral Source
Family MD (name given, not given)
Drug Use
Alcohol Use
Number of Presenting Complaints
Severity of Presenting Problems
On Medication (yes, no)
History of Outpatient Treatment
History of Inpatient Treatment
# Previous Outpatient Contacts
# Previous Inpatient Contacts
Next of Kin Provided (yes, no)
Time of Scheduled Intake
Prior CAMHC Contact (yes, no)
Wait Between Initial Call and Scheduled Intake (days)
Presenting Complaint Checklist (i.e., anxiety, behavior problems, depression, hallucinations, marital/relationship difficulties, separation/divorce, homicidal ideation, suicidal ideation).

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